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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/336,126	06/18/1999	ZHIFENG REN	19226/650R55	7291

7590

07/30/2003

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EXAMINER

MIGGINS, MICHAEL C

ART UNIT

PAPER NUMBER

1772

22

DATE MAILED: 07/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/336,126

Applicant(s)

REN ET AL.

Examiner

Michael C. Miggins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6,9-26,29-37,78 and 87-89 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,9-26,29-37,78 and 87-89 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

#### ***Continued Prosecution Application***

1. The request filed on 7/10/03 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/336,126 is acceptable and a CPA has been established. An action on the CPA follows.

### **WITHDRAWN REJECTIONS**

2. There are no rejections withdrawn.

### **REJECTIONS REPEATED**

3. All of the prior art rejections including 102 and 103 rejections are repeated for the reasons previously of record in paper #10, pages 5-9, paragraphs 11-15. Also, the 35 USC 103 rejection of claims 87-89 is repeated for the reasons previously of record in paper #17, pages 3-4, paragraphs 5-6.

### **NEW REJECTIONS**

4. There are no new rejections.

### **ANSWERS TO APPLICANT'S ARGUMENTS**

5. Applicant's arguments filed 7/10/03 have been carefully considered but are deemed unpersuasive.

Applicant has argued that Ajayan cannot be said to contain one or more carbon nanotubes formed on and extending outwardly from the substrate because the nanotubes are merely arranged on the substrate. However, Ajayan teach that the carbon nanotubes are applied to the glass substrate via a solvent enclosing the magnetic material on the glass substrate (column 12, lines 50-67) and thus the carbon nanotubes are formed on the substrate.

Applicant has argued that Ajayan does not inherently disclose applicant's claimed strain point or melting point between about 300 and 700 degrees C. It is applicant's view that there is no objective teaching that would indicate that the glass substrate Ajayan has a strain point or melting point between about 300 and 700 degrees C. However, Ajayan clearly teaches a heat treatment of the glass substrate at 300 degrees C for 2 minutes (see column 11, lines 60-67). Thus clearly indicating that the glass substrate of Ajayan must inherently possess a strain point or melting point between about 300 and 700 degrees C.

Applicant has argued that Debe does not teach truly carbon nanotubes. However, Debe teaches that the nanotubes can be made from naphthalene, anthracene etc. (column 9, lines 27-34) and thus the nanotubes of Debe are a type of carbon nanotube. The nanotubes of Debe are polynuclear (column 9, lines 27-34) but applicant does not claim monoatomic nanotubes nor does applicant claim any morphological structure which would exclude polynuclear carbon nanotubes.

Applicant's argument with regards to the 103 rejection over Ajayan in view of Chen has been carefully considered. Applicant again argues in paper #16, pages 7-8

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that Ajayan does not inherently disclose the claimed strain and melting points. These arguments are addressed above. Applicant argues that Ajayan can not be combined with Chen. In response to applicant's argument that Ajayan and Chen can not be combined, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The fact that Chen teaches the use of a nickel substrate does not in any way teach away from combining Ajayan and Chen. In fact there is nothing in Chen which would teach away from the combination. There must a specific teaching against a particular aspect of a reference to constitute a "teaching away". The teaching of the use of two different substrates by Ajayan and Chen is not a "teaching away" when there is no specific teaching in either reference barring the use of a particular substrate.

### ***Conclusion***

6. This is a CPA of applicant's earlier Application No.09/333,126. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL**

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even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is (703) 305-0915. The examiner can normally be reached on Monday-Friday; 1:30-10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pyon Harold can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

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MCM *MCM*  
July 25, 2003

*Nasser Ahmad*  
NASSER AHMAD  
PRIMARY EXAMINER  
*Acting SPE*